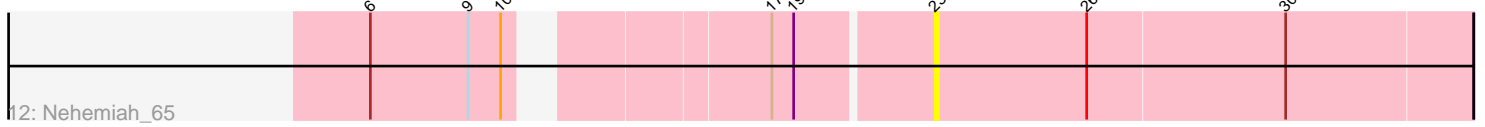
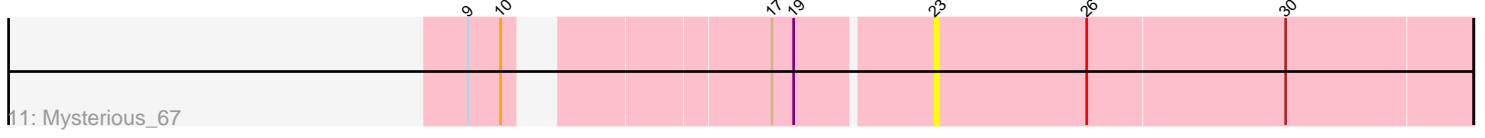
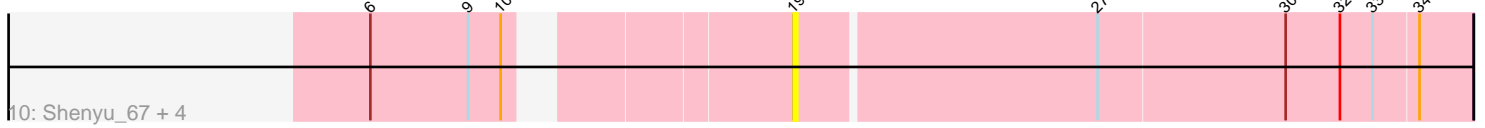
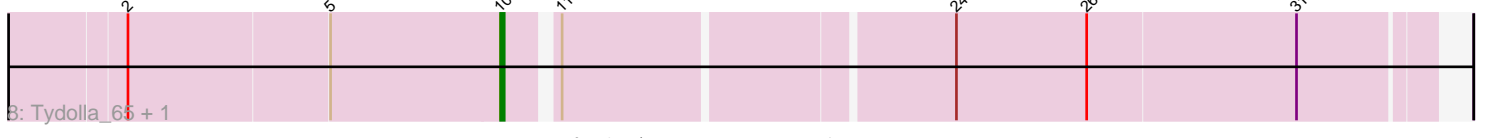
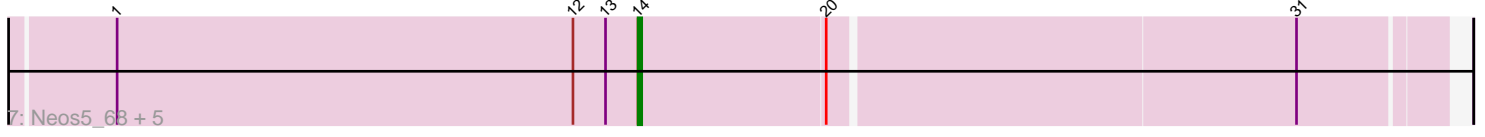
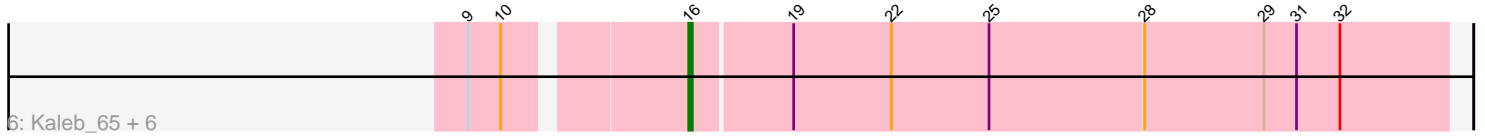
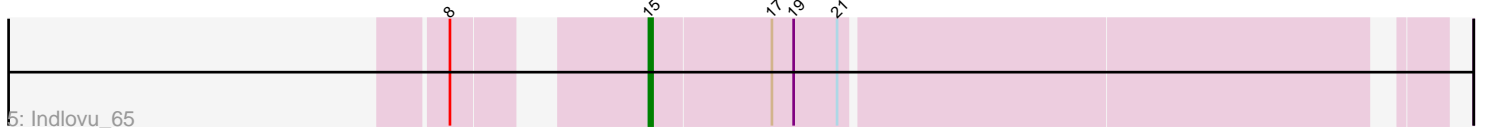
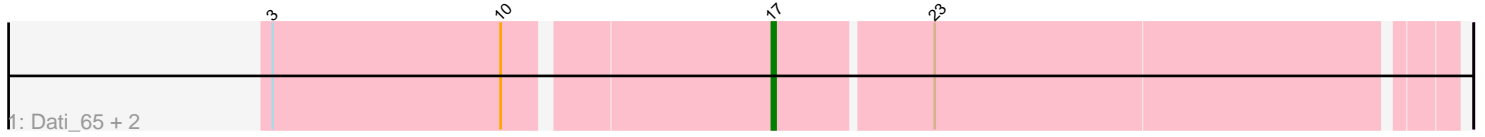


Pham 194062



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 194062 Report

This analysis was run 11/02/24 on database version 579.

Pham number 194062 has 54 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Dati\_65, Melc17\_65, BlueHusk\_69
- Track 2 : DonSanchon\_64, Dingo\_65, MiniBoss\_65, Phareon\_66, Grand2040\_66, AltPhacts\_66, Buckeye\_68, Mikota\_65, MelsMeow\_67, Potter\_65, Chorkpop\_68, Maskar\_68, BlackStallion\_68, ImtiyazSitla\_68, Hamish\_65, Lasso\_67, Sheila\_64, Adriana\_69, Horchata\_65, GeneCoco\_68, Scrick\_67, Inverness\_66, Basato\_67, Ashraf\_68, Gyarad\_0067
- Track 3 : Eugenia\_68
- Track 4 : UAch1\_68
- Track 5 : Indlovu\_65
- Track 6 : Kaleb\_65, Coffee\_64, TA17A\_64, Allegro\_64, Faze9\_63, Phantasmagoria\_63, Vic9\_66
- Track 7 : Neos5\_68, SlippinJimmy\_71, Marley1013\_69, Obutu\_70, Briakila\_68, Phayeta\_71
- Track 8 : Tydolla\_65, HarveySr\_67
- Track 9 : Morty007\_67
- Track 10 : Shenyu\_67, StinkyVeggy\_66, Nangang\_66, DigitDog\_67, KarasumaRum\_66
- Track 11 : Mysterious\_67
- Track 12 : Nehemiah\_65

### ***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 17, it was called in 28 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adriana\_69, AltPhacts\_66, Ashraf\_68, Basato\_67, BlackStallion\_68, BlueHusk\_69, Buckeye\_68, Chorkpop\_68, Dati\_65, Dingo\_65, DonSanchon\_64, GeneCoco\_68, Grand2040\_66, Gyarad\_0067, Hamish\_65, Horchata\_65, ImtiyazSitla\_68, Inverness\_66, Lasso\_67, Maskar\_68, Melc17\_65, MelsMeow\_67, Mikota\_65, MiniBoss\_65, Phareon\_66, Potter\_65, Scrick\_67, Sheila\_64,

Genes that have the "Most Annotated" start but do not call it:

- Indlovu\_65, Mysterious\_67, Nehemiah\_65,

Genes that do not have the "Most Annotated" start:

• Allegro\_64, Briakila\_68, Coffee\_64, DigitDog\_67, Eugenia\_68, Faze9\_63, HarveySr\_67, Kaleb\_65, KarasumaRum\_66, Marley1013\_69, Morty007\_67, Nangang\_66, Neos5\_68, Obutu\_70, Phantasmagoria\_63, Phayeta\_71, Shenyu\_67, SlippinJimmy\_71, StinkyVeggy\_66, TA17A\_64, Tydolla\_65, UAch1\_68, Vic9\_66,

### Summary by start number:

Start 10:

- Found in 46 of 54 ( 85.2% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 4.3% of time when present
- Phage (with cluster) where this start called: HarveySr\_67 (B3), Tydolla\_65 (B3),

Start 14:

- Found in 7 of 54 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 5 of 43
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Briakila\_68 (B3), Marley1013\_69 (B3), Neos5\_68 (B3), Obutu\_70 (B3), Phayeta\_71 (B3), SlippinJimmy\_71 (B3),

Start 15:

- Found in 1 of 54 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlovu\_65 (B11),

Start 16:

- Found in 7 of 54 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 4 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Allegro\_64 (B2), Coffee\_64 (B2), Faze9\_63 (B2), Kaleb\_65 (B2), Phantasmagoria\_63 (B2), TA17A\_64 (B2), Vic9\_66 (B2),

Start 17:

- Found in 31 of 54 ( 57.4% ) of genes in pham
- Manual Annotations of this start: 28 of 43
- Called 90.3% of time when present
- Phage (with cluster) where this start called: Adriana\_69 (B1), AltPhacts\_66 (B1), Ashraf\_68 (B1), Basato\_67 (B1), BlackStallion\_68 (B1), BlueHusk\_69 (B1), Buckeye\_68 (B1), Chorkpop\_68 (B1), Dati\_65 (B1), Dingo\_65 (B1), DonSanchon\_64 (B1), GeneCoco\_68 (B1), Grand2040\_66 (B1), Gyarad\_0067 (B1), Hamish\_65 (B1), Horchata\_65 (B1), ImtiyazSitla\_68 (B1), Inverness\_66 (B1), Lasso\_67 (B1), Maskar\_68 (B1), Melc17\_65 (B1), MelsMeow\_67 (B1), Mikota\_65 (B1), MiniBoss\_65 (B1), Phareon\_66 (B1), Potter\_65 (B1), Scrick\_67 (B1), Sheila\_64 (B1),

Start 18:

- Found in 2 of 54 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 50.0% of time when present
- Phage (with cluster) where this start called: UAch1\_68 (B1),

Start 19:

- Found in 15 of 54 ( 27.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: DigitDog\_67 (B5), KarasumaRum\_66 (B5), Nangang\_66 (B5), Shenyu\_67 (B5), StinkyVeggy\_66 (B5),

Start 20:

- Found in 7 of 54 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Morty007\_67 (B3),

Start 22:

- Found in 9 of 54 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Eugenia\_68 (B1),

Start 23:

- Found in 30 of 54 ( 55.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Mysterious\_67 (B5), Nehemiah\_65 (B5),

**Summary by clusters:**

There are 5 clusters represented in this pham: B5, B11, B1, B2, B3,

Info for manual annotations of cluster B1:

- Start number 17 was manually annotated 28 times for cluster B1.
- Start number 18 was manually annotated 1 time for cluster B1.
- Start number 22 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B11:

- Start number 15 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B2:

- Start number 16 was manually annotated 4 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 10 was manually annotated 2 times for cluster B3.
- Start number 14 was manually annotated 5 times for cluster B3.
- Start number 20 was manually annotated 1 time for cluster B3.

**Gene Information:**

Gene: Adriana\_69 Start: 57994, Stop: 58173, Start Num: 17

Candidate Starts for Adriana\_69:

(4, 57871), (Start: 10 @57925 has 2 MA's), (Start: 17 @57994 has 28 MA's), (23, 58036),

Gene: Allegro\_64 Start: 55516, Stop: 55722, Start Num: 16

Candidate Starts for Allegro\_64:

(9, 55462), (Start: 10 @55471 has 2 MA's), (Start: 16 @55516 has 4 MA's), (19, 55543), (Start: 22 @55570 has 1 MA's), (25, 55597), (28, 55639), (29, 55672), (31, 55681), (32, 55693),

Gene: AltPhacts\_66 Start: 56481, Stop: 56660, Start Num: 17

Candidate Starts for AltPhacts\_66:

(4, 56358), (Start: 10 @56412 has 2 MA's), (Start: 17 @56481 has 28 MA's), (23, 56523),

Gene: Ashraf\_68 Start: 57146, Stop: 57325, Start Num: 17

Candidate Starts for Ashraf\_68:

(4, 57023), (Start: 10 @57077 has 2 MA's), (Start: 17 @57146 has 28 MA's), (23, 57188),

Gene: Basato\_67 Start: 57199, Stop: 57378, Start Num: 17

Candidate Starts for Basato\_67:

(4, 57076), (Start: 10 @57130 has 2 MA's), (Start: 17 @57199 has 28 MA's), (23, 57241),

Gene: BlackStallion\_68 Start: 57193, Stop: 57372, Start Num: 17

Candidate Starts for BlackStallion\_68:

(4, 57070), (Start: 10 @57124 has 2 MA's), (Start: 17 @57193 has 28 MA's), (23, 57235),

Gene: BlueHusk\_69 Start: 56949, Stop: 57128, Start Num: 17

Candidate Starts for BlueHusk\_69:

(3, 56817), (Start: 10 @56880 has 2 MA's), (Start: 17 @56949 has 28 MA's), (23, 56991),

Gene: Briakila\_68 Start: 57517, Stop: 57732, Start Num: 14

Candidate Starts for Briakila\_68:

(1, 57373), (12, 57499), (13, 57508), (Start: 14 @57517 has 5 MA's), (Start: 20 @57568 has 1 MA's), (31, 57694),

Gene: Buckeye\_68 Start: 58013, Stop: 58192, Start Num: 17

Candidate Starts for Buckeye\_68:

(4, 57890), (Start: 10 @57944 has 2 MA's), (Start: 17 @58013 has 28 MA's), (23, 58055),

Gene: Chorkpop\_68 Start: 56930, Stop: 57109, Start Num: 17

Candidate Starts for Chorkpop\_68:

(4, 56807), (Start: 10 @56861 has 2 MA's), (Start: 17 @56930 has 28 MA's), (23, 56972),

Gene: Coffee\_64 Start: 55626, Stop: 55832, Start Num: 16

Candidate Starts for Coffee\_64:

(9, 55572), (Start: 10 @55581 has 2 MA's), (Start: 16 @55626 has 4 MA's), (19, 55653), (Start: 22 @55680 has 1 MA's), (25, 55707), (28, 55749), (29, 55782), (31, 55791), (32, 55803),

Gene: Dati\_65 Start: 57259, Stop: 57438, Start Num: 17

Candidate Starts for Dati\_65:

(3, 57127), (Start: 10 @57190 has 2 MA's), (Start: 17 @57259 has 28 MA's), (23, 57301),

Gene: DigitDog\_67 Start: 58467, Stop: 58649, Start Num: 19

Candidate Starts for DigitDog\_67:

(6, 58365), (9, 58392), (Start: 10 @58401 has 2 MA's), (19, 58467), (27, 58548), (30, 58599), (32, 58614), (33, 58623), (34, 58635),

Gene: Dingo\_65 Start: 56457, Stop: 56636, Start Num: 17

Candidate Starts for Dingo\_65:

(4, 56334), (Start: 10 @56388 has 2 MA's), (Start: 17 @56457 has 28 MA's), (23, 56499),

Gene: DonSanchon\_64 Start: 56612, Stop: 56791, Start Num: 17

Candidate Starts for DonSanchon\_64:

(4, 56489), (Start: 10 @56543 has 2 MA's), (Start: 17 @56612 has 28 MA's), (23, 56654),

Gene: Eugenia\_68 Start: 57577, Stop: 57729, Start Num: 22

Candidate Starts for Eugenia\_68:

(7, 57457), (9, 57478), (Start: 10 @57487 has 2 MA's), (Start: 18 @57550 has 1 MA's), (Start: 22 @57577 has 1 MA's), (32, 57700),

Gene: Faze9\_63 Start: 55651, Stop: 55857, Start Num: 16

Candidate Starts for Faze9\_63:

(9, 55597), (Start: 10 @55606 has 2 MA's), (Start: 16 @55651 has 4 MA's), (19, 55678), (Start: 22 @55705 has 1 MA's), (25, 55732), (28, 55774), (29, 55807), (31, 55816), (32, 55828),

Gene: GeneCoco\_68 Start: 57462, Stop: 57641, Start Num: 17

Candidate Starts for GeneCoco\_68:

(4, 57339), (Start: 10 @57393 has 2 MA's), (Start: 17 @57462 has 28 MA's), (23, 57504),

Gene: Grand2040\_66 Start: 57405, Stop: 57584, Start Num: 17

Candidate Starts for Grand2040\_66:

(4, 57282), (Start: 10 @57336 has 2 MA's), (Start: 17 @57405 has 28 MA's), (23, 57447),

Gene: Gyarad\_0067 Start: 56782, Stop: 56961, Start Num: 17

Candidate Starts for Gyarad\_0067:

(4, 56659), (Start: 10 @56713 has 2 MA's), (Start: 17 @56782 has 28 MA's), (23, 56824),

Gene: Hamish\_65 Start: 56845, Stop: 57024, Start Num: 17

Candidate Starts for Hamish\_65:

(4, 56722), (Start: 10 @56776 has 2 MA's), (Start: 17 @56845 has 28 MA's), (23, 56887),

Gene: HarveySr\_67 Start: 56727, Stop: 56969, Start Num: 10

Candidate Starts for HarveySr\_67:

(2, 56631), (5, 56685), (Start: 10 @56727 has 2 MA's), (11, 56739), (24, 56841), (26, 56877), (31, 56934),

Gene: Horchata\_65 Start: 56937, Stop: 57116, Start Num: 17

Candidate Starts for Horchata\_65:

(4, 56814), (Start: 10 @56868 has 2 MA's), (Start: 17 @56937 has 28 MA's), (23, 56979),

Gene: ImtiyazSitla\_68 Start: 57146, Stop: 57325, Start Num: 17

Candidate Starts for ImtiyazSitla\_68:

(4, 57023), (Start: 10 @57077 has 2 MA's), (Start: 17 @57146 has 28 MA's), (23, 57188),

Gene: Indlovu\_65 Start: 58320, Stop: 58526, Start Num: 15

Candidate Starts for Indlovu\_65:

(8, 58278), (Start: 15 @58320 has 1 MA's), (Start: 17 @58353 has 28 MA's), (19, 58359), (21, 58371),

Gene: Inverness\_66 Start: 56946, Stop: 57125, Start Num: 17

Candidate Starts for Inverness\_66:

(4, 56823), (Start: 10 @56877 has 2 MA's), (Start: 17 @56946 has 28 MA's), (23, 56988),

Gene: Kaleb\_65 Start: 55644, Stop: 55850, Start Num: 16

Candidate Starts for Kaleb\_65:

(9, 55590), (Start: 10 @55599 has 2 MA's), (Start: 16 @55644 has 4 MA's), (19, 55671), (Start: 22 @55698 has 1 MA's), (25, 55725), (28, 55767), (29, 55800), (31, 55809), (32, 55821),

Gene: KarasumaRum\_66 Start: 58294, Stop: 58476, Start Num: 19

Candidate Starts for KarasumaRum\_66:

(6, 58192), (9, 58219), (Start: 10 @58228 has 2 MA's), (19, 58294), (27, 58375), (30, 58426), (32, 58441), (33, 58450), (34, 58462),

Gene: Lasso\_67 Start: 57164, Stop: 57343, Start Num: 17

Candidate Starts for Lasso\_67:

(4, 57041), (Start: 10 @57095 has 2 MA's), (Start: 17 @57164 has 28 MA's), (23, 57206),

Gene: Marley1013\_69 Start: 58226, Stop: 58441, Start Num: 14

Candidate Starts for Marley1013\_69:

(1, 58082), (12, 58208), (13, 58217), (Start: 14 @58226 has 5 MA's), (Start: 20 @58277 has 1 MA's), (31, 58403),

Gene: Maskar\_68 Start: 57146, Stop: 57325, Start Num: 17

Candidate Starts for Maskar\_68:

(4, 57023), (Start: 10 @57077 has 2 MA's), (Start: 17 @57146 has 28 MA's), (23, 57188),

Gene: Melc17\_65 Start: 57547, Stop: 57726, Start Num: 17

Candidate Starts for Melc17\_65:

(3, 57415), (Start: 10 @57478 has 2 MA's), (Start: 17 @57547 has 28 MA's), (23, 57589),

Gene: MelsMeow\_67 Start: 57199, Stop: 57378, Start Num: 17

Candidate Starts for MelsMeow\_67:

(4, 57076), (Start: 10 @57130 has 2 MA's), (Start: 17 @57199 has 28 MA's), (23, 57241),

Gene: Mikota\_65 Start: 56445, Stop: 56624, Start Num: 17

Candidate Starts for Mikota\_65:

(4, 56322), (Start: 10 @56376 has 2 MA's), (Start: 17 @56445 has 28 MA's), (23, 56487),

Gene: MiniBoss\_65 Start: 56250, Stop: 56429, Start Num: 17

Candidate Starts for MiniBoss\_65:

(4, 56127), (Start: 10 @56181 has 2 MA's), (Start: 17 @56250 has 28 MA's), (23, 56292),

Gene: Morty007\_67 Start: 58277, Stop: 58441, Start Num: 20

Candidate Starts for Morty007\_67:

(1, 58082), (12, 58208), (13, 58217), (Start: 14 @58226 has 5 MA's), (Start: 20 @58277 has 1 MA's), (31, 58403),

Gene: Mysterious\_67 Start: 58447, Stop: 58593, Start Num: 23

Candidate Starts for Mysterious\_67:

(9, 58336), (Start: 10 @58345 has 2 MA's), (Start: 17 @58405 has 28 MA's), (19, 58411), (23, 58447), (26, 58489), (30, 58543),

Gene: Nangang\_66 Start: 58493, Stop: 58675, Start Num: 19

Candidate Starts for Nangang\_66:

(6, 58391), (9, 58418), (Start: 10 @58427 has 2 MA's), (19, 58493), (27, 58574), (30, 58625), (32, 58640), (33, 58649), (34, 58661),

Gene: Nehemiah\_65 Start: 58285, Stop: 58431, Start Num: 23

Candidate Starts for Nehemiah\_65:

(6, 58147), (9, 58174), (Start: 10 @58183 has 2 MA's), (Start: 17 @58243 has 28 MA's), (19, 58249), (23, 58285), (26, 58327), (30, 58381),

Gene: Neos5\_68 Start: 57688, Stop: 57903, Start Num: 14

Candidate Starts for Neos5\_68:

(1, 57544), (12, 57670), (13, 57679), (Start: 14 @57688 has 5 MA's), (Start: 20 @57739 has 1 MA's), (31, 57865),

Gene: Obutu\_70 Start: 57908, Stop: 58123, Start Num: 14

Candidate Starts for Obutu\_70:

(1, 57764), (12, 57890), (13, 57899), (Start: 14 @57908 has 5 MA's), (Start: 20 @57959 has 1 MA's), (31, 58085),

Gene: Phantasmagoria\_63 Start: 55526, Stop: 55732, Start Num: 16

Candidate Starts for Phantasmagoria\_63:

(9, 55472), (Start: 10 @55481 has 2 MA's), (Start: 16 @55526 has 4 MA's), (19, 55553), (Start: 22 @55580 has 1 MA's), (25, 55607), (28, 55649), (29, 55682), (31, 55691), (32, 55703),

Gene: Phareon\_66 Start: 56635, Stop: 56814, Start Num: 17

Candidate Starts for Phareon\_66:

(4, 56512), (Start: 10 @56566 has 2 MA's), (Start: 17 @56635 has 28 MA's), (23, 56677),

Gene: Phayeta\_71 Start: 57812, Stop: 58027, Start Num: 14

Candidate Starts for Phayeta\_71:

(1, 57668), (12, 57794), (13, 57803), (Start: 14 @57812 has 5 MA's), (Start: 20 @57863 has 1 MA's), (31, 57989),

Gene: Potter\_65 Start: 56927, Stop: 57106, Start Num: 17

Candidate Starts for Potter\_65:

(4, 56804), (Start: 10 @56858 has 2 MA's), (Start: 17 @56927 has 28 MA's), (23, 56969),

Gene: Scrick\_67 Start: 56929, Stop: 57108, Start Num: 17

Candidate Starts for Scrick\_67:

(4, 56806), (Start: 10 @56860 has 2 MA's), (Start: 17 @56929 has 28 MA's), (23, 56971),

Gene: Sheila\_64 Start: 56299, Stop: 56478, Start Num: 17

Candidate Starts for Sheila\_64:

(4, 56176), (Start: 10 @56230 has 2 MA's), (Start: 17 @56299 has 28 MA's), (23, 56341),

Gene: Shenyu\_67 Start: 58862, Stop: 59044, Start Num: 19

Candidate Starts for Shenyu\_67:

(6, 58760), (9, 58787), (Start: 10 @58796 has 2 MA's), (19, 58862), (27, 58943), (30, 58994), (32, 59009), (33, 59018), (34, 59030),

Gene: SlippinJimmy\_71 Start: 58709, Stop: 58924, Start Num: 14

Candidate Starts for SlippinJimmy\_71:



(1, 58565), (12, 58691), (13, 58700), (Start: 14 @58709 has 5 MA's), (Start: 20 @58760 has 1 MA's), (31, 58886),

Gene: StinkyVeggy\_66 Start: 58294, Stop: 58476, Start Num: 19

Candidate Starts for StinkyVeggy\_66:

(6, 58192), (9, 58219), (Start: 10 @58228 has 2 MA's), (19, 58294), (27, 58375), (30, 58426), (32, 58441), (33, 58450), (34, 58462),

Gene: TA17A\_64 Start: 55472, Stop: 55678, Start Num: 16

Candidate Starts for TA17A\_64:

(9, 55418), (Start: 10 @55427 has 2 MA's), (Start: 16 @55472 has 4 MA's), (19, 55499), (Start: 22 @55526 has 1 MA's), (25, 55553), (28, 55595), (29, 55628), (31, 55637), (32, 55649),

Gene: Tydolla\_65 Start: 57176, Stop: 57418, Start Num: 10

Candidate Starts for Tydolla\_65:

(2, 57080), (5, 57134), (Start: 10 @57176 has 2 MA's), (11, 57188), (24, 57290), (26, 57326), (31, 57383),

Gene: UAch1\_68 Start: 57127, Stop: 57306, Start Num: 18

Candidate Starts for UAch1\_68:

(7, 57034), (9, 57055), (Start: 10 @57064 has 2 MA's), (Start: 18 @57127 has 1 MA's), (Start: 22 @57154 has 1 MA's), (32, 57277),

Gene: Vic9\_66 Start: 56338, Stop: 56544, Start Num: 16

Candidate Starts for Vic9\_66:

(9, 56284), (Start: 10 @56293 has 2 MA's), (Start: 16 @56338 has 4 MA's), (19, 56365), (Start: 22 @56392 has 1 MA's), (25, 56419), (28, 56461), (29, 56494), (31, 56503), (32, 56515),